



SAW Components

Data Sheet B3691

Data Sheet

An abstract graphic featuring the word "EPCOS" in large, glowing, 3D letters. The letters are white with a bright, circular highlight in the center of each, giving them a three-dimensional appearance. They are set against a dark, textured background that includes a faint, glowing globe and circuitry patterns, suggesting a high-tech or electronic theme.



SAW Components

B3691

Low-Loss Filter

420,0 MHz

Data Sheet

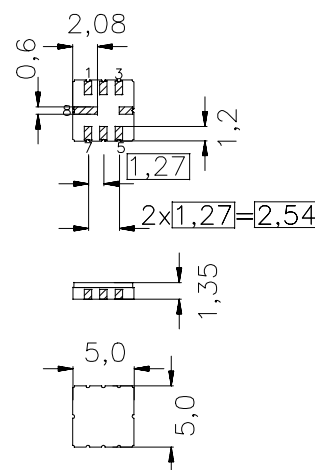
Ceramic SMD package QCC8C

Features

- Low-loss filter for TETRA
- Usable bandwidth 20 MHz
- No matching required for operation at 50 Ω
- Package for Surface Mounted Technology (SMT)

Terminals

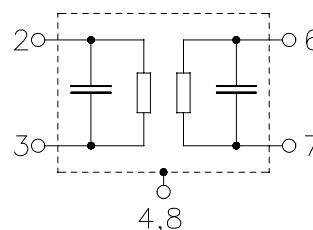
- Gold plated



Dimensions in mm, approx. weight 0,10 g

Pin configuration

2	Input
3	Input ground
6	Output
7	Output ground
1, 5	Ground
4, 8	Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B3691	B39421-B3691-U310	C61157-A7-A56	F61074-V8070-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	-40/ +85	$^{\circ}\text{C}$	
Storage temperature range	T_{stg}	-40/ +85	$^{\circ}\text{C}$	
DC voltage	V_{DC}	0	V	
Source power	P_{s}	10	dBm	



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Characteristics

Operating temperature:	$T = +25\text{ °C}$
Terminating source impedance:	50 Ω
Terminating load impedance:	50 Ω

		min.	typ.	max.	
Nominal frequency	f_N	—	420,0	—	MHz
Maximum insertion attenuation 410,0 MHz ... 430,0 MHz	$\alpha_{\max}$	—	2,0	2,3	dB
Amplitude ripple (p-p) 410,0 MHz ... 430,0 MHz	$\Delta\alpha$	—	0,65	0,9	dB
Absolute attenuation	α_{abs}				
0,1 MHz ... 300,0 MHz		30	35	—	dB
300,0 MHz ... 365,0 MHz		24	30	—	dB
365,0 MHz ... 380,0 MHz		22	24,5	—	dB
464,825 MHz		10	23	—	dB
519,65 MHz ... 539,65 MHz		28	32	—	dB
629,3 MHz ... 649,3 MHz		24	28	—	dB
649,3 MHz ... 1000,0 MHz		26	30	—	dB
Return loss (Input)					
410,0 MHz ... 415,0 MHz		8,0	9,0	—	dB
415,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
Return loss (Output)					
410,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
Temperature coefficient of frequency	TC_f	—	– 70	—	ppm/K



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Characteristics

Operating temperature: $T = +5 \dots +45 \text{ }^{\circ}\text{C}$
 Terminating source impedance: $50 \text{ } \Omega$
 Terminating load impedance: $50 \text{ } \Omega$

		min.	typ.	max.	
Nominal frequency	f_N	—	420,0	—	MHz
Maximum insertion attenuation 410,0 MHz ... 430,0 MHz	$\alpha_{\max}$	—	2,1	2,5	dB
Amplitude ripple (p-p) 410,0 MHz ... 430,0 MHz	$\Delta\alpha$	—	0,65	1,0	dB
Absolute attenuation	α_{abs}				
0,1 MHz ... 300,0 MHz		30	35	—	dB
300,0 MHz ... 365,0 MHz		24	30	—	dB
365,0 MHz ... 380,0 MHz		22	24,5	—	dB
464,825 MHz		10	23	—	dB
519,65 MHz ... 539,65 MHz		28	32	—	dB
629,3 MHz ... 649,3 MHz		24	28	—	dB
649,3 MHz ... 1000,0 MHz		26	30	—	dB
Return loss (Input)					
410,0 MHz ... 415,0 MHz		8,0	9,0	—	dB
415,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
Return loss (Output)					
410,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
Temperature coefficient of frequency	TC_f	—	– 70	—	ppm/K



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Low-Loss Filter

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Characteristics

Operating temperature: $T = -30 \dots +80 \text{ }^{\circ}\text{C}$
 Terminating source impedance: $50 \text{ } \Omega$
 Terminating load impedance: $50 \text{ } \Omega$

		min.	typ.	max.	
Nominal frequency	f_N	—	420,0	—	MHz
Maximum insertion attenuation 410,0 MHz ... 430,0 MHz	$\alpha_{\max}$	—	2,2	2,7	dB
Amplitude ripple (p-p) 410,0 MHz ... 430,0 MHz	$\Delta\alpha$	—	0,7	1,0	dB
Absolute attenuation	α_{abs}				
0,1 MHz ... 300,0 MHz		30	35	—	dB
300,0 MHz ... 365,0 MHz		24	30	—	dB
365,0 MHz ... 380,0 MHz		22	24,5	—	dB
464,825 MHz		10	23	—	dB
519,65 MHz ... 539,65 MHz		28	32	—	dB
629,3 MHz ... 649,3 MHz		24	28	—	dB
649,3 MHz ... 1000,0 MHz		26	30	—	dB
Return loss (Input)					
410,0 MHz ... 415,0 MHz		8,0	9,0	—	dB
415,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
Return loss (Output)					
410,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
Temperature coefficient of frequency	TC_f	—	- 70	—	ppm/K



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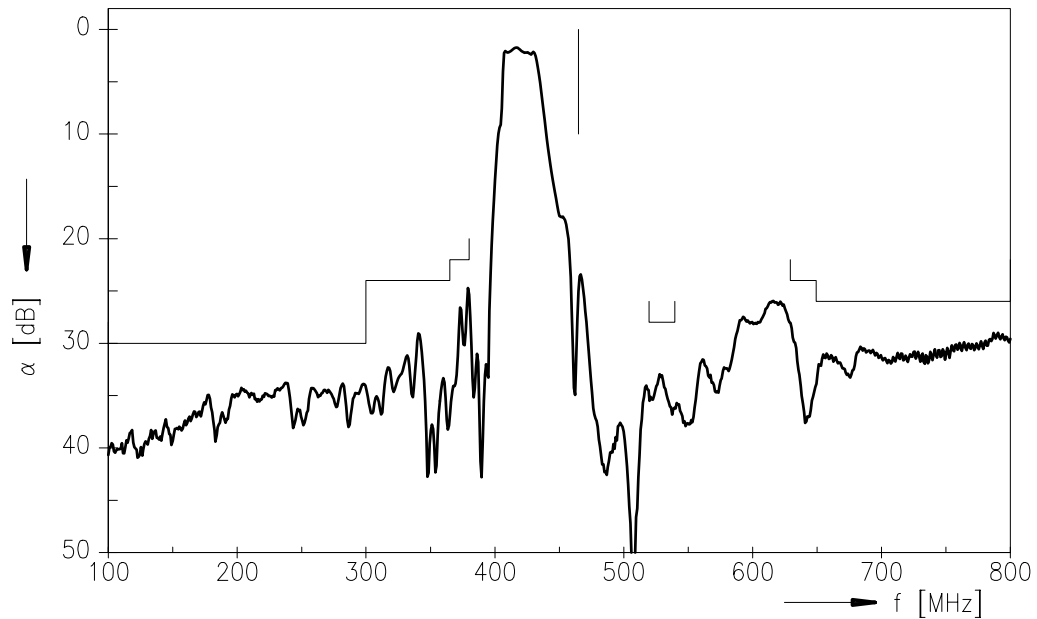
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Low-Loss Filter

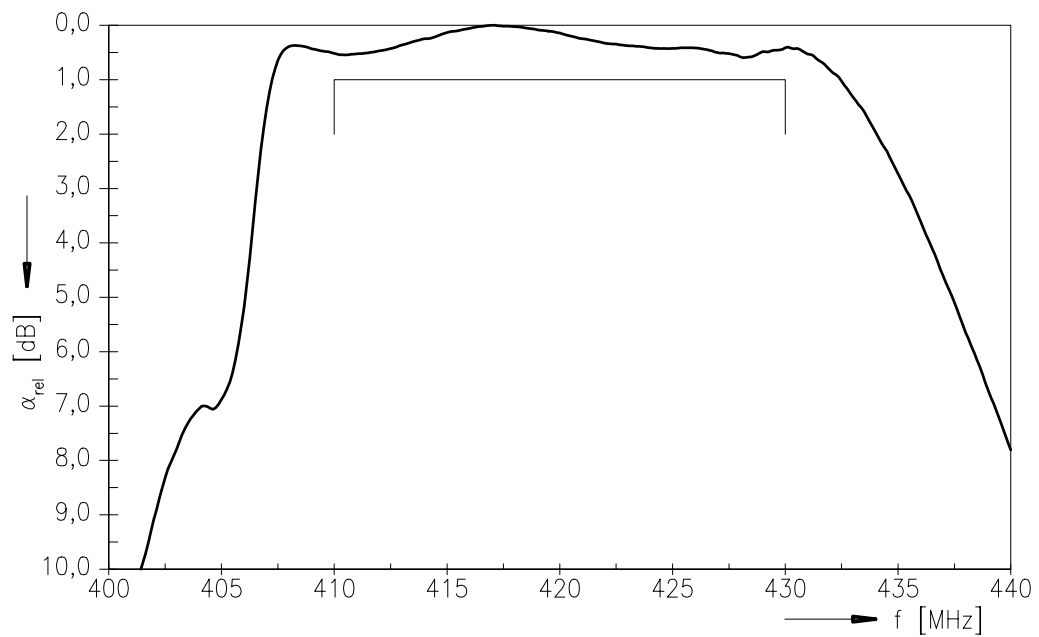
420,0 MHz

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Transfer function



Normalized Transfer function (pass band)





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